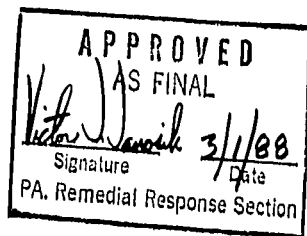


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HEALTH AND SAFETY PLAN  
FOR  
REESER'S LANDFILL SITE  
UPPER MANCUNGIE TOWNSHIP, PENNSYLVANIA

JUNE 1987



EPA Work Assignment No. 377-3LJ7  
REM II Document No.: 384-PP1-OP-ESFR

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REESER'S LANDFILL SITE  
HEALTH AND SAFETY PLAN

1.0 INTRODUCTION

1.1 BACKGROUND

This site-specific Health and Safety Plan has been prepared as an addition to the REM II Health and Safety Assurance Manual (HSAM). The overall organization structure and responsibilities for the supervisory personnel for health and safety of the REM II contract have been described in the Manual.

For this project, Mr. Michael Cola, of WESTON will be the Site Manager. The designated Site Health and Safety Coordinator (SHSC) will be Mr. Raymond Scheinfeld. He will report directly to the Site Manager and maintain contact with the Regional Health and Safety Supervisor (RHSS). The SHSC will ensure that provisions of the Health and Safety Plan are being implemented. The RHSS, Mr. Martin O'Neill, will perform audit functions, and assist when on-site activities are impacted by changing conditions. An individual with appropriate field and health/safety experience designated by the SHSC will be responsible for specific location health and safety concerns when two activities are on-going at different locations. The Subcontractor will be required to assign a health and safety manager for the site activities and will be required to follow new OSHA standards for providing at least 40 hours of health and safety training for its employees. It is anticipated that Ms. Nancy Matzer will provide these health and safety services.

Prior to personnel conducting activities at the Reeser's landfill site, each individual in the field is required to read this Health and Safety Plan and sign the Health and Safety Plan

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Signature form. The original form will be maintained by the SHSC with copies forwarded to the RHSS and Health and Safety Manager (HSM).

The Site Health and Safety Plan Form (SHSPF) is attached to this document and supplies a condensed version of information contained in this document.

#### 1.2 SUBCONTRACTORS

In compliance with the newly adopted OSHA regulations for hazardous waste operations, the REM II team has adopted formal health and safety requirements for its subcontractors. Protection of the health and safety of subcontractors is provided by ensuring that individuals employed by the subcontractor and working on or adjacent to a REM II site are aware of potential risks and hazards associated with their assigned activities, are properly trained, and comply with the appropriate requirements of the HSAM, including medical monitoring.

The subcontractor will work under the guidelines of this Health and Safety Plan (HSP). However, the subcontractor may choose to develop his/her own HSP. The subcontractor can utilize the HSAM as a guideline for development of a site-specific HSP for their own employees. If the subcontractor chooses to operate under his/her own plan, the plan shall be approved by the HSM. In all cases, the subcontractor is required to work under a HSP that meets HSAM policies and procedures. The Subcontractor will be required to assign a health and safety manager for the site activities and will be required to follow new OSHA standards for providing at least 40 hours of health and safety training for its employees. In addition, the subcontractor is required to provide all equipment for subcontractor personnel.

Regardless of whether the subcontractor adopts the REM II HSM, or develops his/her own, before subcontractor personnel can work on

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or adjacent to a REM II site, a designated representative of the subcontracting firm must certify, in writing:

- o The he/she has been given authority by the Board of Directors of the Subcontracting firm to agree to and implement the procedures as stated in the HSAM and the specific HSP in effect.
- o That all Subcontractor personnel involved in work activities on and adjacent to the site comply with the following requirements:
  - Understand that the work is to be performed on a known hazardous waste site and that protective clothing and respiratory protective devices may be required.
  - Understand and have agreed to the provisions of the specific HSP in effect.
  - Have been examined by a licensed physician in accordance with 29 CFR 1910.120 and 1910.134 and that the physician has certified these individuals to be medically qualified to perform the stated work assignment and medically qualified to use respiratory protective devices to perform the stated work assignment.
  - Have been trained in accordance with the applicable sections of 29 CFR 1910 and 29 CFR 1926/1910.
  - Agree to work under the direction of the SHSC.
- o All equipment provided to Subcontractor personnel by the Subcontractor is NIOSH/MSHA approved as appropriate and is in working condition, as specified by the manufacturer.
- o All Subcontractor respiratory and personnel protection programs that apply to the site are in compliance with 29 CFR 1910 and 29 CFR 1926/1910.

If the Subcontractor has adopted the REM II HSP, the Subcontractors designated representative must certify, in writing:

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- o That all Subcontractor personnel shall comply with the provisions of the HSAM and the applicable provisions of the REM II HSP.

If the Subcontractor has developed his/her own HSP, the Subcontractor's designated representative must:

- o Agree that all Subcontractor personnel shall comply with the provisions of the REM II Health and Safety Assurance Manual, the Contractor's HSP, and the Subcontractor's HSP, and that this plan is in compliance with the applicable sections of 29 CFR 1910 and 29 CFR 1926/1910.

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## 2.0 REESER'S LANDFILL SITE HEALTH AND SAFETY PROGRAM.

The following sections in conjunction with the Site Health and Safety Plan form (SHSPF), fully describe the hazards posed to personnel involved in RI activities at the Reeser's landfill site and the protection program planned.

### 2.1 SITE FEATURES AND BACKGROUND

Pages 1-4 of the SHSPF give a summary of site features and background. In addition to Sections 1 and 2 of the Sampling and Analysis Plan provide an extensive survey of site features. This document will be available to site personnel.

### 2.2 HAZARD ANALYSIS

The required levels of protection have been determined based upon review of available data relating to particular source areas, preliminary air analyses and initial site sampling information. The RHSS and SHSC has determined the levels and types of respiratory and body protection necessary based on the location of field activities, knowledge of chemicals of interest, and type of potential exposure based on the planned activity.

Organic vapor monitoring has been conducted to determine action levels for field activities (See Section 4.0). Monitoring will continue during the sitework activities, utilizing established NIOSH and USEPA-approved procedures by using a photoionization detector and organic vapor analyzer. An oxygen indicator and explosimeter will be utilized for intrusive drilling activities.

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Baseline air monitoring will be conducted in potential source areas as follows:

- o A Safety Sweep of the Work Area was completed prior to RI field work, during preparation of the Work Plan and Sampling and Analysis Plan, and was used in evaluating personnel protection levels for non-intrusive activities.
- o Periodic and continuous monitoring will be conducted during all phases of the RI field work to confirm ambient air levels and to document that personnel protection levels are adequate.
- o In addition, personnel monitoring will be used to confirm/document exposure conditions during the two tasks of greatest potential hazard, on-site well installation and test pit construction.

Specific action levels are defined in the SHSPF. These action levels are consistent with or more conservative than those specified in the REM II HSM. The action levels will be used by the SHSC to upgrade or downgrade specific protection measures as appropriate. Downgrades will be confirmed with the RHSS who will be responsible for notifying the REM II HSM.

### 2.3 CONTAMINANTS OF CONCERN

In August 1983 the FIT III field team conducted the Preliminary Assessment/Site Inspection (PA/SI) of Reeser's Landfill. The results of the PA/SI are described in the Sampling and Analysis Plan. A home well survey was performed at this time along with collecting on-site and off-site samples. The results of the FIT III investigations were used as a basis for the Site Contamination Survey presented in the Sampling and Analysis Plan. This information was also used to recommend field investigation activities for the RI/FS. A brief summary of the FIT III team data and toxicological conclusions is presented within this section.

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A number of wells in Haafsville were sampled including the wells at the Hilber, Merkel, and Reed residences along with the Lehigh County Water Authority well No. 6. The Reed well showed 50 ug/L lead and 14 ug/L cadmium. Elevated concentrations of iron and manganese were noted in the Reed well sample and at lower levels in other ground water samples. Iron and manganese affect aesthetic quality of the water but do not pose a potential toxicological hazard. The Merkel well sample was the only ground water sample collected where an organic compound was identified. At this location acetone was found at concentrations of 41 ug/L. No health hazards are posed by the low concentrations detected in this water sample. Further, the presence of acetone alone in one sample may be suspect, since acetone is a commonly used field decontamination solvent.

Surface water samples were taken at an upstream and downstream location in Iron Run, the sedimentation pond and ponded water in the pit where burning material were excavated. Only the downstream Iron Run water sample identified evidence of contamination. Mercury was detected at 0.6 ug/L.

Soil and sediment samples were taken at an upstream and downstream location, the unnamed tributary, the sedimentation pond, the burn pond, and stained soils. The sample from the burn pond showed 0.6 mg/kg of mercury and the stained soil sampled had 1.05 mg/kg mercury. These concentrations are elevated with respect to mercury concentrations normally found in non-polluted soils, which are typically on the order of 0.01 mg/kg. Low levels (less than detection limits of 400 ug/kg or 800 ug/kg) of polynuclear aromatic hydrocarbons (PAHs) and phenol were identified in the sediment sample collected from an unnamed tributary some distance east of the site.

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The primary contaminants of concern are cadmium, lead, and mercury. Cadmium and lead concentrations were detected in residential wells at levels meeting or exceeding the EPA's Maximum Contaminant Level (MCL). Mercury was detected at levels exceeding the EPA's Ambient Water Quality Criteria for active mercury in surface water samples taken downstream of the facility. Other contaminants of concern, however not identified at the facility, include methane, and vinyl chloride, due to their frequent appearance at municipal landfills.

The primary contaminants of concern and their health effects are described below:

o Lead

Early effects from lead exposure are non-specific, however symptoms such as decreased physical fitness, fatigue, headaches, and others may occur. Later symptoms include anemia, abdominal cramping, constipation, and occasional nausea and vomiting. The principle target organs and symptoms from lead exposure are the kidneys, central and peripheral nervous system, and the blood. The symptoms and target organ may vary depending on specific lead compounds.

o Cadmium

Exposure to cadmium and certain cadmium compounds occur through inhalation or ingestion. Local exposure to cadmium fumes and dust can result in irritation to the respiratory system, in which pulmonary edema, dyspnea, coughing, tightness in the chest, and substernal pain may occur. Other symptoms such as headaches, chills, nausea, and diarrhea may also occur. The principal target organs include the respiratory system, kidneys, prostate glands, and blood.

o Mercury

Mercury and compounds of mercury are highly toxic by skin absorption, ingestion, and inhalation. The principle target organs are the skin, respiratory system, central nervous system, kidney, and eyes. Symptoms from exposure to mercury depending upon the specific compound may include coughing, dyspnea, bronchitis, pneumonia, insomnia, paralysis, ataxia, and many others.

o Vinyl Chloride

Vinyl chloride has been utilized in the manufacturing of plastics and refrigerants, organic synthesis, and is frequently found at municipal landfills. It is a cancer causing agent in occupationally exposed individuals. Short-term exposure may cause symptoms of intoxication, drowsiness, abdominal pain, pains in joints, skin irritation, and frostbite. Long-term exposure can cause skin thickening, skin discoloration, and liver, and spleen damage.

o Methane

Methane is usually identified with municipal landfills and is an odorless, colorless, and tasteless gas. Although it is relatively non-toxic it poses a serious fire explosive hazard. Five to fifteen percent by volume with air forms an explosive mixture. It also reacts violently with chlorine and bromine in light (explosively in direct sunlight). The flash point of methane is -306°F (-190°C), and its autoignition temperature 1000°F (537°C).

## 2.4 PLANNED ACTIVITIES AND LEVELS OF PROTECTION

The following chart lists the specific tasks of the Reeser's Landfill RI, the primary level of protection, and the monitoring devices required for each. The primary level of protection is defined as that level of protection that will implemented during initial activities. Subsequent upgrades/downgrades will be based upon action levels, site conditions, and monitoring results.

## 2.5 PROTECTIVE EQUIPMENT

Specific requirements for levels of protection and protective equipment are defined in the SHSPF. The primary levels of protection planned for the Reaser's landfill site are Level C and D.

Level D protection will consist of the following:

- o Cotton or Tyvek coveralls
- o Steel toe/shank chemical resistant boots or safety work shoes.
- o Chemical resistant disposable overboots.
- o Hard hat.
- o Safety glasses.
- o Latex (surgical) gloves or cotton work gloves.

This level of protection will be used in support areas where contamination has not been detected through monitoring instruments, skin contact is unlikely, and when subsurface soils have not been disturbed. Level D protection will be worn by all personnel as a minimum.

Level C protection will consists of the following:

- o Steel toe/shank chemical resistant boots or safety work shoes with chemical resistant overboots.
- o Full face air purifying respirator (MSHA/NIOSH approved) with organic vapor, high efficiency cartridge.
- o Tyvek or Saranex coveralls (material dependent upon degree of contact, site conditions, and chance of encountering wet matrix)
- o Cotton coveralls (inner).
- o Surgical inner gloves.
- o Nitrile outer gloves.

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- o Hard hat.
- o Splash shield, if wet matrix and splash hazard present.

Level C protection will be utilized during initial intrusive activities on-site and when action levels dictate upgrade from Level D for off-site activities.

Personnel will start each activity in the primary level of protection as prescribed in this plan. Upgrades in protection will be based upon established action levels and existing site condition. If upgrades are initiated, the SHSC will be responsible for notifying the RHSS. If conditions persist that qualify the activity's levels of protection to be downgraded (i.e., ambient, breathing zone readings are "0"), the SHSC must confirm that decision with the RHSS. The RHSS will be responsible for clearing that decision with the HSM.

## 2.6 WORK ZONES AND DECONTAMINATION

Given the nature and size of the Reeser's Landfill site, there will be many locations on-site which will require delineated work zones. For tasks which will take place at specific locations on-site, (i.e., well installation), work zones will be established (Hot Zone, Contamination Reduction Zone, Support) and decontamination procedures will be localized. For tasks which will require a series of locations (i.e., geophysical surveys), work zones and decontamination procedures will be centralized at the support/command area on-site. The following is a generalized discussion of work zone delineation and decontamination organization.

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Activity	Subcontracting Services	Level D	Level C	Continuous Monitoring
Site Survey		X		Initial: HNU Survey OVA
Site Walk-through		X		Initial: HNU Survey OVA
Geophysical Techniques		X		CGI/O <sub>2</sub> (1) HNU
On-site well Construction	X		X <sup>(2)</sup>	CGI/O <sub>2</sub> HNU OVA
Off-site well Construction	X		X <sup>(2)</sup>	CGI/O <sub>2</sub> OVA
On-site well sampling			X <sup>(2)</sup>	CGI/O <sub>2</sub> (1) HNU OVA
Off-site well sampling			X <sup>(2)</sup>	CGI/O <sub>2</sub> OVA
Aquifer testing			X <sup>(2)</sup>	CGI/O <sub>2</sub> (1) HNU
Test pit Construction	X		X <sup>(2)</sup>	CGI/O <sub>2</sub> OVA HNU RAD.

- (1) Instruments will be utilized to clear a specific well prior to activity commencing. Subsequent levels of protection will be determined by results of monitoring well "head space" and breathing zone surrounding well. This is in accordance with accepted REM II Procedures.
- (2) It is anticipated that Level C personnel protection will be required only during the initial performance of the designated tasks, and that air monitoring will clear these activities for downgrade to Level D personnel protection.

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For work that is to be performed in potentially contaminated areas, the areas will be divided into designated zones, as follows:

- o Zone 1 (Exclusion Zone) - The active investigation will take place in this area. All personnel entering this zone will do so from the decontamination/equipment supply area. They will don the appropriate safety equipment as specified by the SHSC, and will enter and exit the area via the prescribed route.
- o Zone 2 (Contamination Reduction Zone) - Decontamination procedures for personnel and equipment will take place in this area.

The exclusion zone (Zone 1) is separated from the contamination reduction zone (Zone 2) by the "hot line." All personnel and equipment crossing the hot line from Zone 1 to Zone 2 will be required to undergo decontamination. The decontamination equipment will be set up at the hot line. Decontamination may be modified in response to the level of contamination to which the worker was exposed during the day.

A typical layout for the decontamination line consists of a series of stations as follows:

- o Station A - Equipment Drop - A plastic ground sheet on which field equipment is stored temporarily by returning members of the work party during tank changes, rest breaks, etc.
- o Station(s) B - Decontamination Tubs -
  - A tub of water to rinse off caked dirt.
  - A wash tub filled with Alconox decontamination solution.
  - A second wash tub filled with rinse solution.

Each wash tub should be equipped with a large sponge and long handled brush. Specific decontamination steps are defined in the SHSPF.

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Small equipment will be decontaminated in a similar manner as that described for personnel decontamination using the same wash and rinse steps. For large pieces of equipment, loose soil or solid residues will be removed from the equipment prior to leaving Zone 1. A decontamination station will be established for large vehicles at the landfill by constructing a gravel sump area, allowing drainage into the landfill. Large vehicle decontamination will be performed at this station using a steam jenny. The decontamination solvents and any potential solvent contaminated rinse waters will be allowed to drain directly into the landfill. The personnel and equipment decontamination sequence utilized for each task will be specific for optimal contamination reduction and efficiency.

At locations where solvents are in use, decontamination personnel will utilize the appropriate level of protection (Level C). Periodic air monitoring in the breathing zone of decontamination workers will be accomplished with the HNu or OVA.

## 2.7 EMERGENCY CONTACTS

Table 2-1 lists emergency contacts and organizations that may be notified in the event of an emergency. This Table will be posted in the support zone/facility convenient for site personnel to access.

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Table 2-1

EMERGENCY CONTACTS: (POST IN SUPPORT AREA)

<u>CONTACT</u>	<u>NAME</u>	<u>PHONE</u>
CDM 24-Hour Emergency Line	N/A	(202) 896-4138
REM II Health and Safety Mgr	M. Mathamel	(703) 968-0900
Regional Health and Safety Supervisor	M. O'Neill	(215) 524-0638
Site Manager	Mike Coia	(215) 692-3030 Ext. 2413
Regional Site Project Manager	Vic Janosik (USEPA)	(215) 597-8996
State Environmental Agency	PA DER	(215) 861-2070
State Spill Contractor		
Fire Department, Lehigh Co. Dist 8		(215) 437-5252
Police Department		(215) 821-6377
State Police, Allentown Troop		(215) 691-6110
Health Department		(215) 437-7760
<u>Poison Control Center</u>		<u>(215) 433-2311</u>

<u>Organization</u>	<u>Phone</u>
USEPA Environmental Response Team	(201) 321-6660
US Coast Guard Environmental Response Team	(800) 424-8802
Association of American Railroads Response Team	(202) 293-4048
CHEMTREC	(800) 424-9300
Dow Chemical Emergency Response	(517) 636-4400
DuPont Chemical Emergency Response	(302) 774-1000
Monsanto Chemical Emergency Response	(618) 271-5835
<u>National Foam Center Emergency Response</u>	<u>(215) 363-1400</u>

Medical Emergency

Hospital Name: Lehigh Valley Hospital

Phone: (215) 776-8001 (General Information)

(215) 776-8111 (Emergency Room)

Hospital Address: Route 309 at Junction of Route 29

Name of Contact at Hospital:

Name of 24-hour Ambulance: Lehigh County Dispatcher

Phone: 437-5252

Route to Hospital:

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### 3.0 SITE CONTINGENCY PLAN

The health and safety program for this project has been established to provide assurance that operations on the site will be conducted with the minimum adverse impact on worker health and safety. These procedures notwithstanding, it is prudent to develop supplementary emergency response procedures to cover those extraordinary conditions that may occur at the site. The Site Health and Safety Coordinator (SHSC) is responsible for ensuring that the site Health and Safety Plan is being implemented properly.

All site personnel will be instructed in emergency response by the SHSC during an on-site training session. The emergency notification checklist and procedures and the site evacuation plan will be conspicuously posted at the working locations at the site, at the site field trailer, and provided to both the guard (guard house) and the USEPA representative.

#### 3.1 EMERGENCY PROCEDURES

The emergency procedures presented are not all inclusive, nor should they be thought of as inflexible. Every incident presents a unique situation that must be dealt with by trained personnel working in a calm, controlled manner. In the event of an incident, the prime consideration is to provide the appropriate initial response to assist those in jeopardy without subjecting additional personnel to an unnecessary risk. The SHSC will decide the response action that is necessary; he/she will serve as the emergency response coordinator. The SHSC will be trained in emergency medical procedures. Contact with site personnel during field operations and alerting them in the event of an emergency will be conducted through the use of two-way radios, hand signals or an audible alarm.

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### 3.2 GENERAL CONDITTONS

All accidents and other incidents will be dealt with in such a manner as to minimize the continued health risk of site workers. The vast majority of activities on the site will be conducted by crews working in reasonable proximity to one another. In other isolated cases where less than a full crew is required to perform a task, a "buddy system" will be utilized so that an individual worker will not be unattended in a physically remote area and not be monitored by another worker in the event that an incident occurs. Field crews will also maintain contact with the Field Team Leader or his designee via walkie-talkie.

In the event that an accident/incident occurs, the following procedures are to be followed:

- o First aid or other appropriate initial action will be administered by those closest to the accident/incident. This assistance will be coordinated by the SHSC and will be conducted in a manner to assure that those rendering assistance are not placed in a situation of unacceptable risk. The primary concern is to avoid placing a greater number of workers in jeopardy.
- o All accident/incidents will be reported to the Site Manager and the SHSC or their designee. REM II HSM will be notified within 48 hours with the completion of a REM II Incident Report following notification. The Site Manager or his designee on site at the time that the incident occurs shall act in an efficient, rapid, and safe manner. He will decide if off-site assistance and/or medical treatment is required and is responsible for alerting off-site authorities and arranging for their assistance. Alternately, as appropriate he will arrange for a team member to transport a less-seriously injured person to medical assistance.

### 3.3 PHYSICAL INJURY

If an employee working in a contaminated area is physically injured, the planned reaction depends on the type and degree of injury, (consistent with Red Cross first aid procedures), the

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location of the incident, and the existing or potential degree of hazard. Depending on the severity of the injury, emergency medical response may be sought. If the employee can be moved, he will be taken to the decontamination station where contaminated clothing can be removed and first aid administered, while awaiting transportation to a local emergency medical facility.

If the employee cannot be moved from the site of the injury and the immediate potential hazard of the incident to the injured person(s) is not threatening, off-site medical assistance will be obtained (e.g., ambulance, paramedics).

#### 3.4 FIRES/EXPLOSIONS

Fire extinguishers will be provided at each work location. If a localized fire breaks out, fire extinguishers will be used to bring it under control. If necessary and feasible, soil or other inert materials will be thrown or pushed on the burning area to extinguish the flames and minimize the potential for spreading. The contract driller may also have a water tanker available for use in the event of a fire. If appropriate, local fire fighting authorities will be contacted for notification and/or assistance.

In the event of an explosion at the site, all personnel are to immediately evacuate the site. The Site Evacuation Plan details the site evacuation signals, routes, and the assembly areas.

No on-site welding is planned. In the event that such welding is required (e.g., to repair a drill rig or the backhoe), the SHSC will work with the welder(s) to ensure that the welding is performed in a safe atmosphere, by monitoring with a portable explosimeter, and that the proper safety procedures/protocols are followed.

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### 3.5 SPILLS

The nature of the Reeser's Landfill site limits spills to a small scale and will be prevented by safe work practices. Small spills will be controlled via application of absorbants and construction of dirt berms.

Once the spill or release is controlled, site operations may continue only after approval by the SHSC and the Site Manager.

Any mixture of soil/absorbent and spilled material will be placed in an appropriate plastic-lined staging area for subsequent packaging and disposal. Small spills will be immediately drummed for disposal.

In the event of an on-site incident requiring notification of the emergency contracts, the SHSC or his designee will be responsible for informing the Site Manager.

### 3.6 DOCUMENTATION

The SHSC is responsible for providing a report to the Site Manager detailing the following information concerning an incident:

- o Nature of the incident (including date and time, personnel involved).
- o Date, time and names of all persons/agencies notified and their response.
- o Resolution of the incident (including duration) and the corrective action involved.

This report is to be submitted to the Site Manager within three working days of the resolution of the event.

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### 3.7 EVACUATION PLAN

In the event that a site emergency necessitates the evacuation of personnel from either specific work zones or the entire site, it will be necessary to follow an established set of procedures. These procedures are to be followed as closely as possible; however, in specific emergency situations, the SHSC and/or the Site Manager may deviate from the procedures to provide a more effective plan for bringing the incident under control. The Site Manager is responsible for determining which emergency situations require evacuation.

The site evacuation alarm signal will consist of three long blasts from a portable air horn, repeated at appropriate intervals, until all personnel have been evacuated from the site or accounted for. The portable air horn will be in the possession of the Site Manager, SHSC, or their designee during any field activities and the alarm signal will be tested to ensure that it is audible at all site locations. In addition to the evacuation alarm, field sampling personnel will be kept informed of site conditions and notified of any site incidents via walkie-talkies.

In the event that the site evacuation is called for by the Site Manager, SHSC or their designee, the following actions are to be taken:

- o The alarm signal of site evacuation will be activated, and field personnel will be notified of the incident via walkie-talkie.
- o No further entry of visitors, contractors, REM II project personnel, or vehicles (other than emergency vehicles) will be permitted onto the site.
- o The main evacuation route for the site is to exit as quickly as possible to Old Route 22 (depending on the existing wind direction). Regrouping area will be primarily the support zone/facility.

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- o All team leaders will be responsible for evacuating the field personnel in the team promptly and safely from the site and reporting the personnel evacuated and their location to the Site Manager or the SHSC.
- o The daily attendance log of on-site personnel will be used to ensure that all individuals are accounted for. If someone is missing, the SHSC will alert emergency personnel. Control of personnel at the rendezvous point is the responsibility of the Site Manager and the SHSC with the assistance of the security force.

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#### 4.0 GENERAL SAFETY GUIDELINES

The following general safety guidelines will be reviewed by all personnel prior to conducting activities at the Reeser's Landfill site.

- o Site personnel will sign a master sheet indicating they have read the site safety plan and will comply.
- o There will be no eating, drinking, or tobacco use in the exclusion or contamination reduction zone.
- o All personnel will perform final hand wash/rinse before break activities will commence.
- o All personnel must pass through the contamination reduction zone to enter or exit the exclusion zone.
- o Emergency washing facilities will be on the contamination side of the contamination reduction zone and/or at the work station. This can be accomplished through use of clean spray container.
- o Fire extinguishers will be on-site for use on equipment or small fires only.
- o An adequately stocked first aid kit will be on scene at all times during operational hours.
- o A morning safety meeting will be conducted on a regular basis for all site personnel. The safety procedures and the day's planned operations should be discussed.
- o No drilling activities will be conducted during thunderstorms or lightening storms. SHSC will consult with the on-site coordinator concerning this determination.
- o A mechanism will be available on-site to facilitate contact of emergency personnel, hospitals, etc. This may be afforded by way of mobile phone.

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#### 5.0 SITE SPECIFIC TRAINING REQUIREMENTS

All site personnel will attend a site specific training program. The contents of this training program will emphasize the following:

- o Roles and responsibilities for Health and Safety
- o Site hazards: physical and chemical
- o Levels of protection
- o Decontamination procedures
- o Monitoring program
- o Cold stress and Heat stress guidelines
- o Emergency procedures
- o General do's and don'ts

The training will be performed by the SHSC and audited by the RHSS.

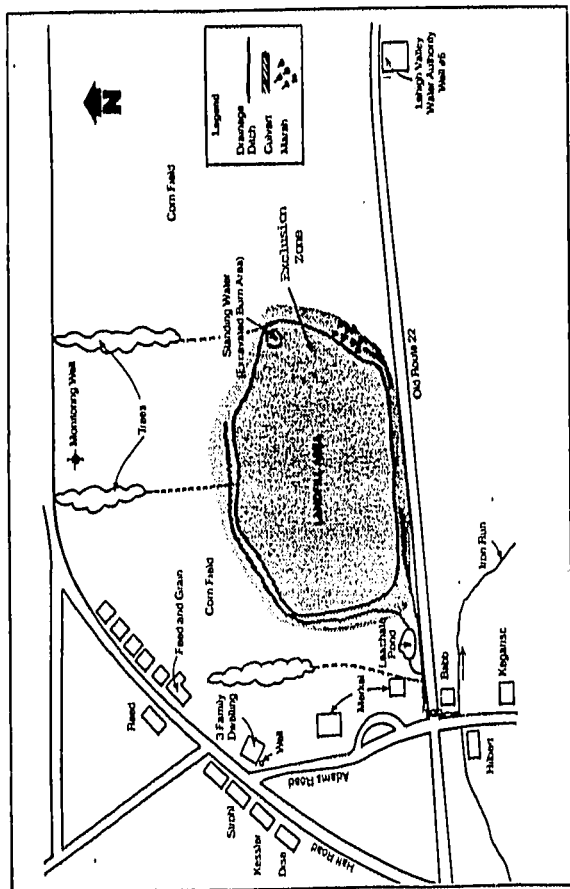
SITE NAME AND SURVEY PLAN FROM UNIT II: Initial and Safety Program		THIS document is for the exclusive use of the USFPA, NEW JI Team FIRES, and their subcontractors.		END FIREARM PROGRAMS CAPTIONING																													
SITE NAME: Reper's Landfill		SITE #: 334		LOCATION: Upper Macungie Township, PA																													
PREPARED BY: Martin P. Wall		REVISION: III		NEW JI DOCUMENT #: 334-PA-00-1250																													
DATE: May 15, 1987		DATE: June 15, 1987		REVISION #: 1																													
<p>( ) AGREEMENT TO EXISTING PLAN</p> <p>( ) DESCRIPTION OF ACTIVITIES:</p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Frequency</th> <th>Location</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>Preliminary Assessment</td> <td>( )</td> <td>Clearing</td> <td>( )</td> </tr> <tr> <td>Statistical Investigation "Walk Through"</td> <td>( )</td> <td>Overnight</td> <td>( )</td> </tr> <tr> <td>Statistical Investigation Sampling</td> <td>( )</td> <td>Other [Specify]</td> <td>( )</td> </tr> <tr> <td>Statistical Investigation Test</td> <td>( )</td> <td></td> <td>( )</td> </tr> <tr> <td>Statistical Investigation</td> <td>(X)</td> <td></td> <td>( )</td> </tr> <tr> <td>Feasibility Study</td> <td>( )</td> <td></td> <td>( )</td> </tr> </tbody> </table>						Activity	Frequency	Location	Notes	Preliminary Assessment	( )	Clearing	( )	Statistical Investigation "Walk Through"	( )	Overnight	( )	Statistical Investigation Sampling	( )	Other [Specify]	( )	Statistical Investigation Test	( )		( )	Statistical Investigation	(X)		( )	Feasibility Study	( )		( )
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<p>( ) DATE EXISTING APPROVED MAP: March 12, 1987</p>																																	
<p>( ) SITE DESCRIPTION AND FEATURES: Summarize below.</p> <p>The Reper's site occupies the southern half of an irregularly shaped 51.5 acre tract of property and appears as a low lying mound, with respect to local grade. Off Route 22 from the southern border, approximately 1/2 mile to the east. Fields separate houses on the southwestern perimeter of the site from Adams Road. Half Road, to the northwest, is similarly separated from the site by houses and residential.</p> <p>Extensive soils and stressed vegetation along the western and southern perimeters of the site attest to leachate seepage impacts. The north, south and south sides of the fill area drain via a ditch along the landfill. The only 1/2 sedimentation pond located in a cornfield several hundred yards to the southwest of the fill (adjacent to Route 22). The pond discharges, via a conduit, into east flowing Run on the south side of Route 22. An open water filled pit, in the northeast corner of the landfill is reportedly the result of excavation of burning wastes. Multiple and runoff from the eastern face is to the south along the edge of the bordering cornfield. Leachate staining also occurs along the side of the landfill. The disposal area is poorly covered and unfenced.</p>																																	
<p>( ) SUBSTANTIVE POPULATION: ( ) Residential ( ) Industrial (X) Rural ( ) Urban ( ) Other:</p>																																	

### SITE HEALTH AND SAFETY PLAN FIRM

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 Evans, and their subcontractors.

### THE FEDERAL PROGRAMS COMPARISON

ATTACH SITE MAP HERE.



# THE HEALTH AND SAFETY PLAN FOR THE 11 MONTH AND SAFETY PROGRAM

This document is for the exclusive use of the OSHA, 29 CFR 1910.101, and their subsidiaries.

## THE 11 MONTH: Summary below

The 11 month area appears to have been either wholly or in part on old quarry, which was filled with municipal, commercial and industrial refuse between 1971 and 1981. Mr. Schuchter, husband originally ran the 11 month for and for local residents. It is not known how long Schuchter's Marine Service used the site, although a Solid Waste Permit application dated July 1977 for Edward F. Schuchter is on file. There is no information as to other possible discharges.

## THE 11 MONTH: Summary below

Primarily municipal refuse; industrial refuse can also be expected.

## THE 11 MONTH: Summary below

- (1) 11 month Stress (attach materials)
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- (100) 11 month Stress (attach materials)

## THE 11 MONTH: Summary below

Direct dumping of municipal, commercial and industrial refuse into a former quarry.



**SITE HEALTH AND SAFETY PLAN FOR  
BEN II BRILL and Safety Program**

CONTAMINANT	EXPOSED CONCENTRATION (specification and units)	PLI/IV ppm or mc/c.a. (specify)	IRL ppm or mc/c.a. (specify)	CONCENTRATION ppm or mc/c.a. (specify)	WARNING SYMPTOMS/EFFECTS OF ACUTE EXPOSURE	THRESHOLD LEVEL PULSATION	P10 FACIES	P10 FACIES
Acetone	50 mg/l, gm	1000 ppm	20 000 ppm	100 ppm	Irritant to eyes, nose and throat, headaches if inhaled.	1	9.5%	
Acetone	200 mg/l, gm	20.5 mg/dl	2250 mg/dl	20/l	Irritant to resp. SI disturbances. Irritant to eyes.	1	NA	
Acetone	500 mg/l, 5	50 mg/dl	50/l		Irritant to resp. tract.	1	NA	
Acetone	21000 mg/l, gm	10 mg/dl	2110		Alteration of nasal septum, dermatitis SI disturbances peripheral neuropathy, transitory myelitis, myelitis, pigmentation of skin, dizziness.	1	NA	
Acetone	18.5 mg/l, 5	10 mg/dl	2110		Cough, nasitis irritability headache.	1	NA	
Acetone	21.25 mg/l, 5	11 mg/dl	21.5 mg/dl	20 mg/dl	SI low weight anorexia.	1	NA	
Acetone	22.8 mg/l, gm	10.2 mg/dl	10.25 mg/dl	20 mg/dl	Pulmonary edema asthma disturbance, headache.	1	NA	
Acetone	20.50 mg/l, 5	10.2 mg/dl	10.25 mg/dl	20 mg/dl	Headache, nasitis, pulmonary edema, anorexia, low weight, anorexia, transitory myelitis, myelitis, pigmentation of skin, dizziness.	1	NA	
Acetone	20 mg/l, gm	10.5 mg/dl	20.15 mg/dl	20 mg/dl	Headache, nasitis, pulmonary edema, anorexia, low weight, anorexia, transitory myelitis, myelitis, pigmentation of skin, dizziness.	1	NA	
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Acetone	20 mg/l, gm	10.5 mg/dl						

**Legend:**

SW = Surface Water	A = Air
EW = Groundwater	T = Tailings
U = Unknown	
NA = Not Available	

# THE FEDERAL PROGRAMS CORPORATION

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USEPA MEH 11 Health and Safety Program

## FIELD INVESTIGATION ACTIVITIES COVERED UNDER THIS PLAN

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**WILLIAMS SOUTHERN TRUSTS INC.**  
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 files, and their subcontractors.

**PROTECTIVE EQUIPMENT:** Specify by task. Indicate type and/or material as necessary.

[illegible]

SITE HEALTH AND SAFETY PLAN FORM		CON FINANCIAL PROGRAMS COMPARISON	
SITE II Health and Safety Program		Firm, and their subcontractors.	
EQUIPMENT: Specify by task. Indicate type, as necessary.		Attach additional sheets, as necessary.	
INSTRUMENT		TASKS	
Instrument		Instrument	
Combustible Gas Indicator	A B E F S	0-100 LH Potential explosion hazard; notify SSG. 100-250 LH Explosion hazard; interrupt task/monthly. 250 LH Oxygen normal. 21.00 Oxygen Oxygen deficient; notify SSG. 19.50 Oxygen Interrupt task/monthly.	emphasis for explosion the deficient atmosphere essential during activities will construction and test piling.
Radiation Survey Meter	F	3 x Background: notify SSG. 240/20: Interrupt task/monthly.	100LF: Asset exposure not to exceed 100 mrem/yr or 50 mrem/yr average 150LF survey completed March 1967.
Photoluminescence Detector	A B E F S	Specify: 0 - 5 units = Level C 5 - 100 units = Level B Further characterize quality/quantity vapors 1000 = still site/evaluate conditions	200LF: Monitoring is to maintain breathing zone, ambient conditions and allow for qualification of methane levels using 100 and 200 in conjunction with each other. If background gas levels are encountered during task B, downgrade to Level 3 for task E and G may be performed.
Flame Ionization Detector	A B E F S	Specify: 0 - 5 units = Level C 5 - 100 units = Level B Further characterize quality/quantity vapors 1000 = still site/evaluate conditions	100LF: If background gas levels are encountered during task B, downgrade to Level 3 for task E and G may be performed.
Detector Tube/Analyzer	D E F	Specify: Oxygen Hydrogen Vinyl Chloride	Should be available on-site in case further qualification of ambient conditions is necessary.
Respirable Dust Monitor		Specify:	
Type:			
Type:			
Other (Specify)		Specify:	

SITE DESIGN AND SAFETY PLAN FORM		FOR FEDERAL PROGRAMS COMPLETION	
BIA II Health and Safety Program		1	
This document is for the exclusive use of the USEPA, BIA II Team, Firms, and their subcontractors.			
DECONTAMINATION PROCEDURES			
ATTACH SITE MAP INDICATING EXCLUSION, DECONTAMINATION, AND SUPPORT ZONES			
Personnel Decontamination	( ) Not Needed	Sampling Equipment Decontamination	( ) Not Needed Heavy Equipment Decontamination
Decontaminate below and/or attach diagram; discuss use of each zone.			
STEP 1: Wash/riase Under boots	( ) Not Needed	Decontaminate below and/or attach diagram; discuss use of each zone.	Decontaminate below and/or attach diagram; discuss use of each zone.
STEP 2: Remove boot covers	( ) Not Needed	21. Top water wash to removed soaked soil.	Decontaminated using steam jetter.
STEP 3: Remove outer gloves (wash/riase)	( ) Not Needed	22. Allowant and top water rinse.	
STEP 4: Remove Overall (disposal)	( ) Not Needed	23. Top water rinse.	
STEP 5: Remove A2	( ) Not Needed		
STEP 6: Remove collum (overall)	( ) Not Needed		
STEP 7: Wash/riase hands.	( ) Not Needed		
Containment and Disposal Method	Containment and Disposal Method	Containment and Disposal Method	Containment and Disposal Method
Decontaminates will be contained in plastic bags and placed in 55 gallon steel drums.	Decontamination with waters will be disposed of on the landfill surface and allowed to percolate in.	Decontamination with water will be disposed of on the landfill surface and allowed to percolate in.	Decontamination with water will be disposed of on the landfill surface and allowed to percolate in.

04-003

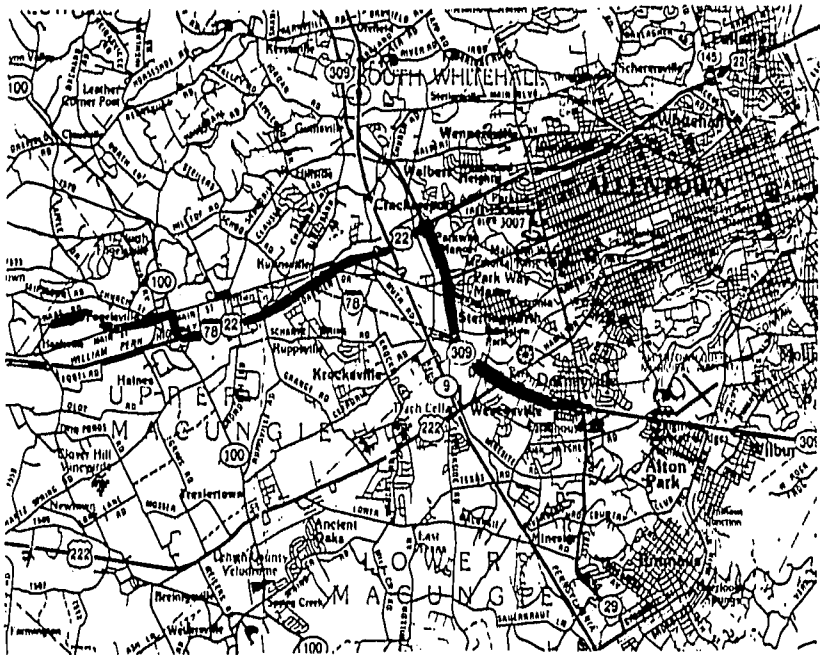
THE PERSONNEL AND RESPONSIBILITIES include subcontractors) indicate if all personnel listed will be on-site)

<sup>1</sup>Personal communication with the author by letter dated 29 Feb 1970, and here and throughout the manuscript listed on this page have been trained in accordance with the requirements of the RER II medical monitoring and respiratory protection program. The medical monitoring program entails, at a minimum, an initial, annual, and exit examinations and the provision for additional examinations based on exposure and at the request of the employee. The respiratory protection program requires II testing and training in the proper selection, use and maintenance of respirators. Additional factors concerning medicals and training are discussed in the RER II Health and Safety Assurance Manual. This manual is available at CDM and RER II contractee's offices.

EMERGENCY CONTACTS		NAME	PHONE
130111 HEALTH AND SAFETY PLAN TEAM	This document is for the exclusive use of the HSEPA, NCE 11 Team		
130112 Health and Safety Program	Firms, and their subcontractors.		
<b>EMERGENCY CONTACTS</b>			
130113 Environmental Response Team	201-521-4440	130114 Emergency Alarm	130115 894-4138
130116 Coast Guard Environmental Response Team	804-424-0812	130117 Health and Safety Manager	130118 934-4990
130119 Association of American Railroads Response Team	202-293-4440	130120 Project/Shift Manager	130121 897-3530
130122 IDENTICAL		130123 Shift Coordinator/Manager	130124 897-3530
130125 Safety Manager, George R. Crawford	215-591-4138	130126 Regional Site Project Manager (HSEPA)	130127 297-8995
130128 Safety Manager, Phillip L. Jones	215-925-3500	130129 HSEPA DEC	
130129 Environmental Safety Manager, Michael J. Ryan	202-847-1100	130130 State Environmental Agency	130131 841-2010
130132 Safety Manager, Viric P. Alton	301-942-5400	130133 State Spill Contractor	130134 827-8995
130135		130136 Fire Department	130137 437-5252
130136		130137 Police Department	130138 821-4317
130137		130138 State Police	130139 911-4110
130138		130139 Health Department	130140 437-7740
130139		130140 Prison Central Center	130141 433-2111
<b>MEDICAL EMERGENCY</b>			
130142		130143 Hospital Name: Lehigh Valley Hospital	130144 Phone:
130143		130144 Hospital Address: Route 309 & Route 29	130145 Emergency Room: 774-9111
130144		130145 Name of Contact at Hospital:	130146 General Info: 774-8001
130145		130146 Name of 24-hour Ambulance: Lehigh Co. Hospital	130147 Phone: 437-5252
130146		130147 Route to Hospital(s) (attach map)	
130147		Old Rt. 22 Main Street East to Rt. 100 South	
130148		to I-78 East to Rt. 309 South to Rt. 29	
130149		intersection. Hospital at intersection	
130150		Distance to Hospital	15 miles

Date: 6-24-87  
 Date: 7/1/87  
 Signature: *Mark J. O'Neill*  
 Signature: *Mark J. O'Neill*

HOSPITAL ROUTE  
FROM  
REESER'S LANDFILL



**Abstract**